

A SEQ ID NO. 7

```

caggcgccgagatgaggcgccgagcgtttctgagcgccgacgaggtgcaggaccacc - 60
tccgcagctccagcctcctcatcccgccctggaggccgactggccaaacttctccaaag - 120
gtcccgcagggaggggtcatgcaaccggtgcgcaccgtggtgcctgtggccaagcaccgag - 180
gcttcttgggagtcagtcagcctacagtgccgctgaggatgcactcaccaccaagttag - 240
tcaccttctatgaggccacagcaacaatgctgtcccctcccaccaggcatcagtgtctc - 300
tctttgatcccagcaatggttccctgctggcgtcatggatggaatgtcataactgcaa - 360
agaggacagcagcgtctctgccatcgccaccaagttttgaagccccaggcagtgatg - 420
tgctgtgcatctctggggtgggtccaggcgtacagtcactatgagatcttcacagaac - 480
agttctcctcaaggaggtgagaatgtggaaccgcaccagggaatgctgagaagttag - 540
caagctcagtgaggagatggtcgggtctgttcatcagtgaggaggtgtgacaggtg - 600
ccgagtgcacatcacagtcacatggcaacggagcccatcttatttggatgaatgggtga - 660
agccccgggctcacatcaatgctgttggagccagtagacctgactggcgagaactggatg - 720
acgagctcatgaagcaagcagtgctgtatgtggactcccgaggaggtgcctaaaggagt - 780
caggagatgttctgttgcagggtgacatcttctgctgagcttgagaagtgttctcag - 840
gagcgaagcctgcatactgtgagaagaccaggtgttcaagctcttggggatggcagtg - 900
aggacctggtcgagccaaattagtgatcgatcggtgcatctggcaagtggagcagaag - 960
gagctgtgcctgggctggatggacgtcacggctcaaacgctggctcagtgctatagatcaa - 1020
aggaggcctagtcaccagtgaaacgggagtgagagtcactcataagtattgacatccctat - 1080
tcattgttgggttgata - 1099

```

B

Rat	1	MRRAPAFLSADEVQDHLRSSLLIPPLEAALANFSKGPDDGGVMQPVRTVVPVAKHRGFLG	(SEQ ID NO. 8)
Mouse	1	-K-----E-----	(SEQ ID NO. 9)
Human	1	-S-V-----A-EE-----T-----S-E-----T---Y--	(SEQ ID NO. 10)
Rat	61	VMPAYSAAEDALTTLVTFYEG*HSNNAVPSHQASVLLFDPSNGSLLAVMDGNVITAKRT	
Mouse	61	-----*---T-----	
Human	61	-----DRGITSV-----T---E---T-----	
Rat	120	AAVSAIATKFLKPPGSDVLCILGAGVQAYSHYEIFTEQFSFKEVRMWNRTRENAEKFASS	
Mouse	120	-----L-----	
Human	121	-----S-E-----I---K-----DT	
Rat	180	VQGDVRCSSVQEAVTGADVITVTMATEPILFGEWVKGAHINAVGASRPDWRELDDEL	
Mouse	180	-----	
Human	181	---E-----A-----L-----	
Rat	240	MKQAVLYVDSREAALKESGDVLLSGADIFAEELGEVVSAGAKPAYCEKTTVFKSLGMAVEDL	
Mouse	240	-R-----I-----H-----	
Human	241	-E-----Q-----E-----IK-V---H-----T	
Rat	300	VAAKLVDYSSSGK	
Mouse	300	-----	
Human	301	-----I-----	

BEST AVAILABLE COPY

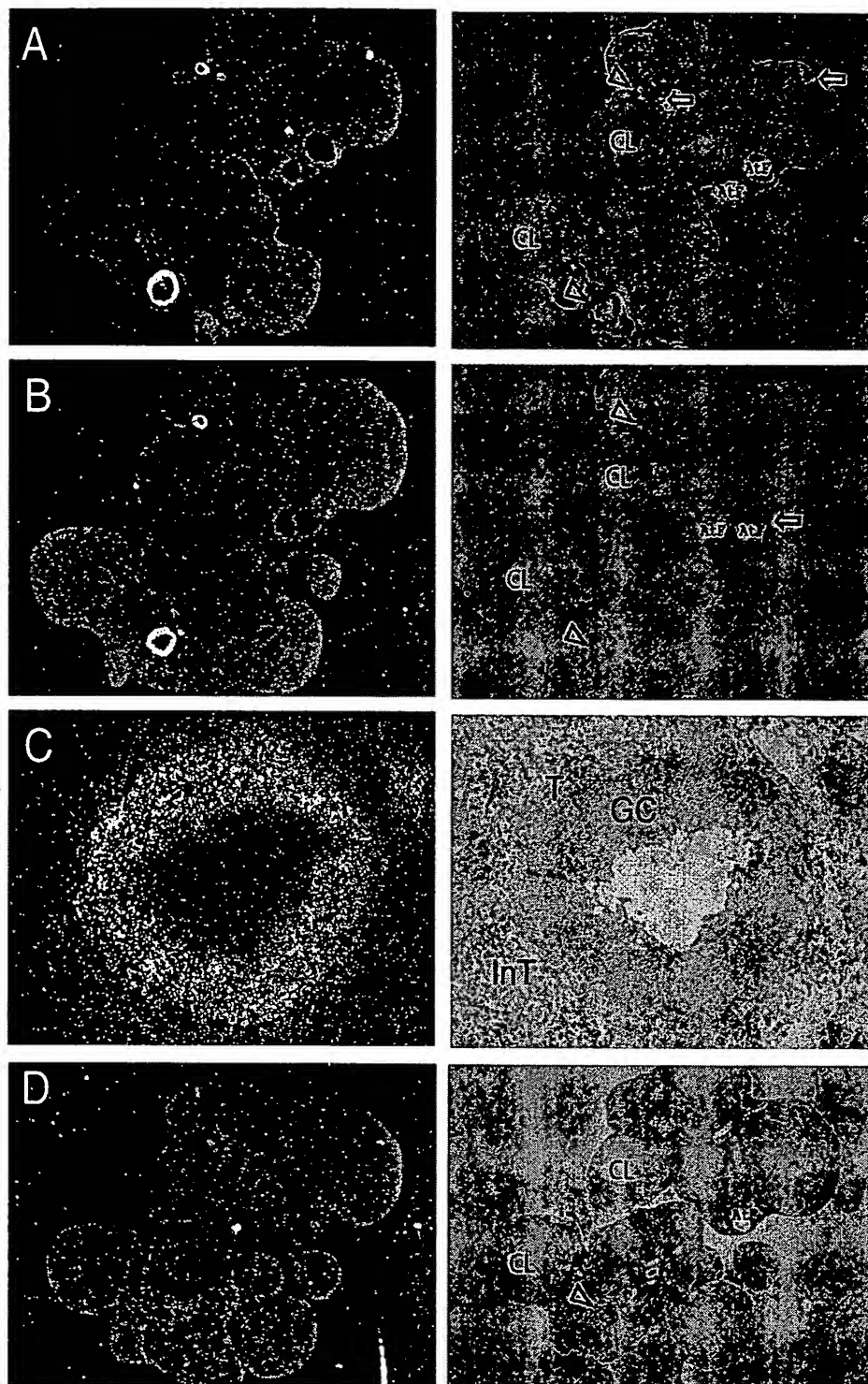
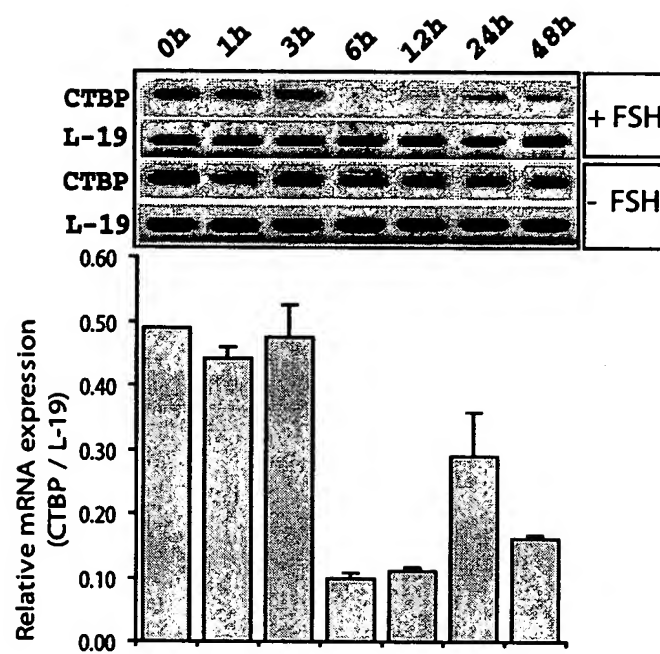


FIG. 2



BEST AVAILABLE COPY

FIG.3

BEST AVAILABLE COPY

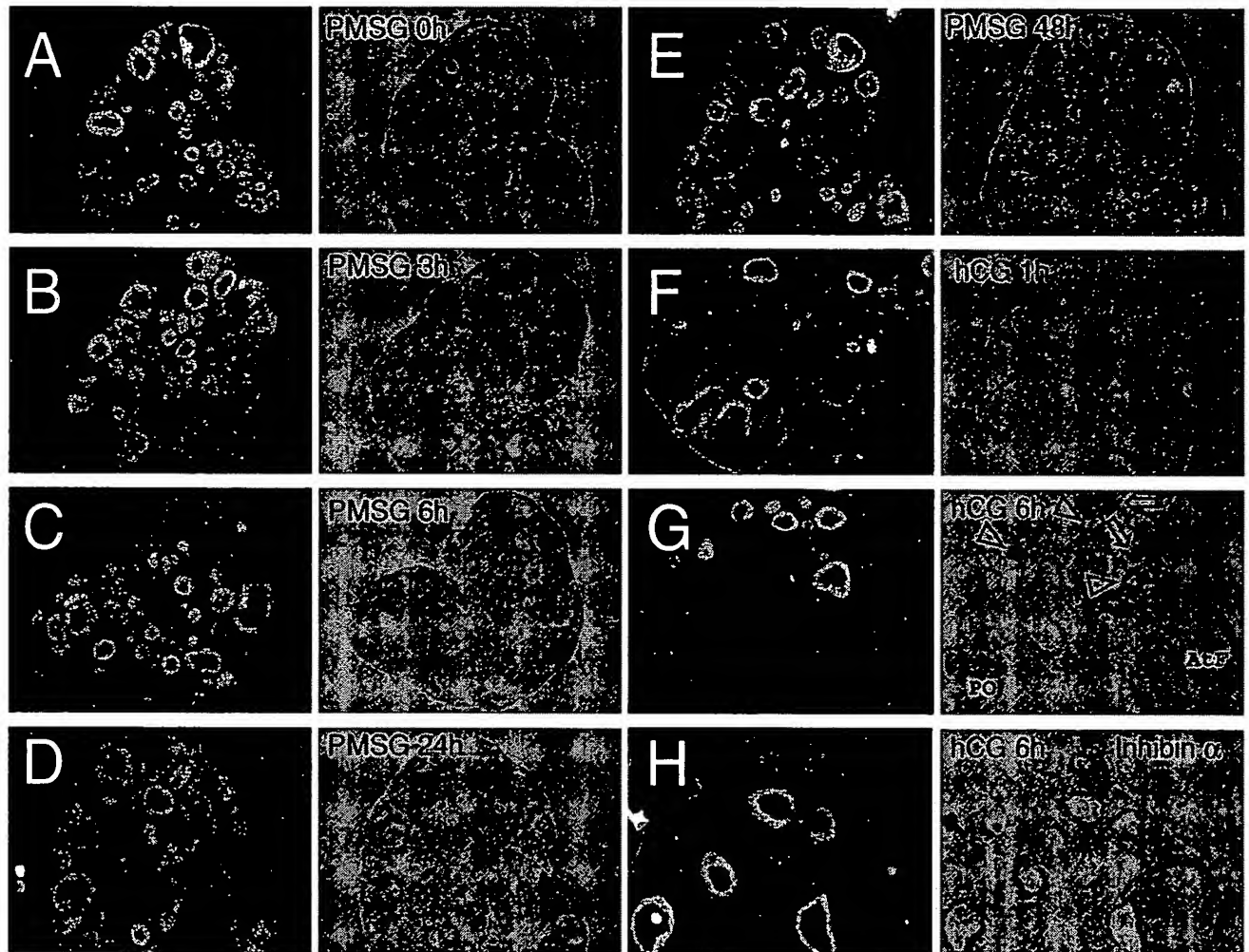


FIG.4

NOT AVAILABLE COPY

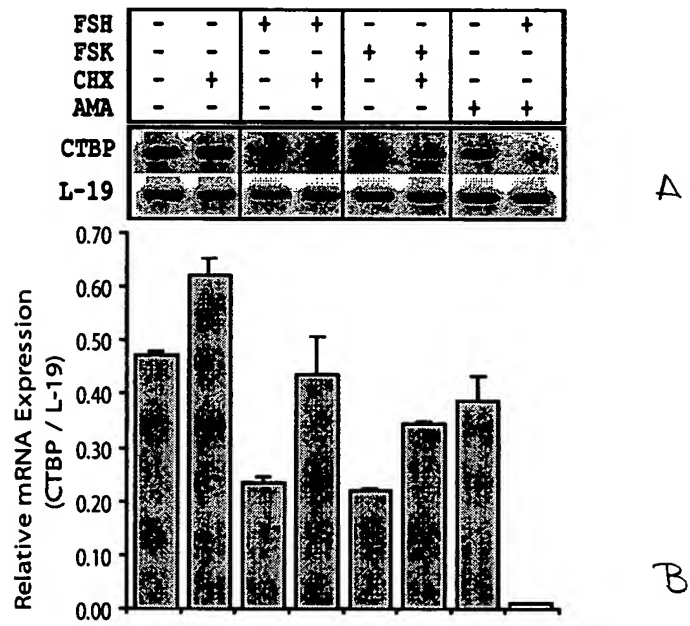


FIG. 5

BEST AVAILABLE COPY

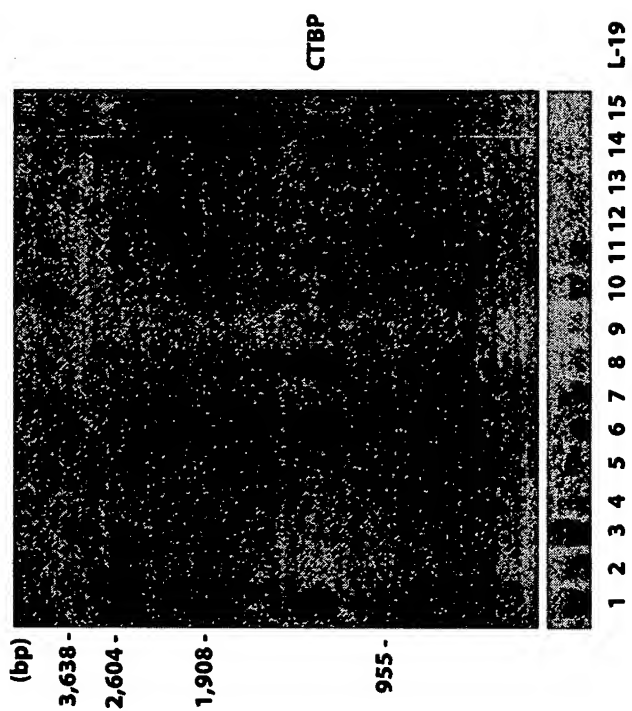


FIG.6

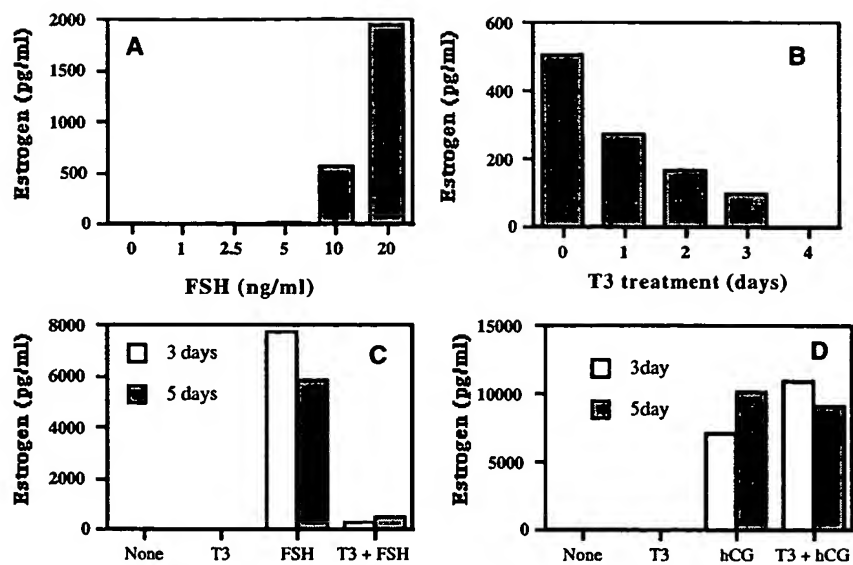


Fig. 7

BEST AVAILABLE COPY

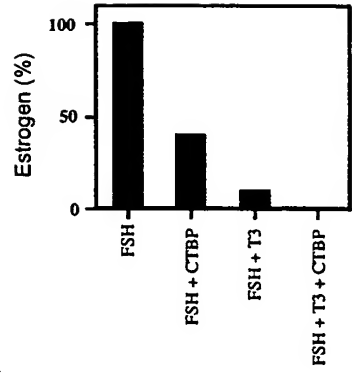


Fig. 8

Fig. 9

(A) DNA sequence: SEQ ID NO. 11

```

1  gtggcgagca ggaaaaatgg cggccggggtt caaaactgtg gaaccgctgg agtattacag
61  gagatttctg aaagaaaact gccgtccaga tggaagagaa cttggtgaat tcagaaccac
121 aactgtcaac ataggttcga tcagtacagc ggatggctct gctctagtga agctggggaa
181 caccacagtc atttgtggag ttaaagcaga atttgcagca ccaccagtag atgccctga
241 tagaggatat gtcgtcccta atgtggacct accaccgctg tgttcacga ggtttcggac
301 tggacctcct ggagaagagg ctcaagtaac cagccagttc attgcagatg tcattgagaa
361 ctcacacata attaagaaag aggacttatg catttctcca ggaagcttg cttgggttct
421 atactgtgac cttatttgcc tagactacga tgggaacatt ttggatgcct gcacatttgc
481 tttgttagca gctttaaaga atgtacagtt gcctgaagtt actataaatg aagaaactgc
541 ttttagcgaa gtcaatttaa agaagaaaag ttatttgaat gttagagcaa acccagttgc
601 tacttcattt gctgtgtttg atgacacttt gctgatagtc gacacctacc gggaggaggg
661 gcacctgtc cacaggaacc ttaaccgtag taatggacga ggaaggcaag ctgtgctgtc
721 ttcacaagcc aggtgggagt gggctgctgg agctaaactt caggactgca tgagtcgagc
781 agtaacgaga cacaagaag tgagcaact actggatgaa gtaattcaga gcatgaaaca
841 caaatgaaca gacgccacga ttgtaaaaca gctgtaaaaa ttgtatttgt tacactgtgc
901 acaggccttt tatactaaat aaatacctaa ttacattctt tgaaaaaaaaa aaaaaaaaaa
961 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa

```

Start codon and stop codon are indicated by bold letters

(B) Protein sequence: SEQ ID NO. 12

MAAGFKTVEPLEYYRRFLKENCPRDRELGEFRITTTVNIGSISTADGSALVKLGNTTVICGVKAEFAAP
PVDAPDRGYVVPNVDLPPLCSSRFRTGPPGEEAQVTSQFIADVIENSHIHKEDLCISPGKLAWVLYCDL
ICLDYDGNILDACTFALLAKNVQLPEVTINEETALAEVNLKKSYLNVANPVATSFVFDLTLIV
DPTGEEGHPVHRNLRNNGRGRQAVLSSQARWEWAAGAKLQDCMSRAVTRHKEVSKLLDEVIQSM
KHK

(C) open reading frame: SEQ ID NO. 13

```

1  gtggcgagcaggaaaa
17  atggcgccgggttcaaaactgtggaaccgctggagtattacagg
    M A A G F K T V E P L E Y Y R
62  agattttctgaaagaaaactgccgtccagatggaagagaacttgggt
    R F L K E N C R P D G R E L G
107 gaattcagaaccacaactgtcaacataggttcgatcagtagcagcgc
    E F R T T T V N I G S I S T A
152 gatggctctgctctagtgaagctggggaacaccacagtcatttgt
    D G S A L V K L G N T T V I C
197 ggagttaaagcagaatttgcagcaccaccagtagatgcccctgat
    G V K A E F A A P P V D A P D
242 agaggatatgtcgtccctaattgtggacctaccaccgctgtgttca
    R G Y V V P N V D L P P L C S
287 tcgaggttctcgactggacctcctggagaagaggctcaagtaacc
    S R F R T G P P G E E A Q V T
332 agccagttcattgcagatgtcattgagaactcacacataattaag
    S Q F I A D V I E N S H I I K
377 aaagaggacttatgcatttctccaggaagcttgcttgggttcta
    K E D L C I S P G K L A W V L
422 tactgtgaccttatttgcctagactacgatgggaacattttggat
    Y C D L I C L D Y D G N I L D
467 gcctgcacatttgcctttagcagctttaaagaatgtacagttg
    A C T F A L L A A L K N V Q L
512 cctgaagttactataaatgaagaaactgctttagcggagtgcaat
    P E V T I N E E T A L A E V N
557 ttaaagaagaaaagttatttgaatgtagagcaaacccagttgct

```